

Jump, Christine

From: Michael Stephenson <mstephenson@cameron-cole.com>
Sent: Thursday, March 05, 2015 10:58 AM
To: Jump, Christine
Subject: Risk "skeletal" memo for CH Wichita.
Attachments: HHRA Comment memo outline.docx

Hi Chris,

I've attached the memo we discussed in our call last week. I'm sending as a word document so you and Ann can redline it with any additions you'd like to see in the memo. Per my notes, I think this covers everything. Let me know if you have any questions.

Thanks,

Mike Stephenson
Principal Scientist
Cameron-Cole LLC
50 Hegenberger Loop
Oakland CA 94621
office - (510) 777-1864
mobile - (510) 773-9895

RCRA



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Clean Harbors Wichita

Response to Comments and Memoranda Outline

EPA provided comments to the Human Health Risk Assessment prepared for the Clean Harbors Wichita facility on October 30, 2014. These comments were discussed in a conference call held on February 24, 2015 between EPA, Clean Harbors, Cameron-Cole and RBR Consulting. The purpose of the meeting was to identify procedures to address the EPA's concerns without holding up progress on the corrective action project. This memo summarizes the agreed upon approach to addressing EPA's comments. Following reconciliation of EPA's concerns regarding the proposed plan described below, Clean Harbors will prepare a technical memorandum in response to the comments.

Comment 1 – The risk assessment did not address Clean Harbor's own impact upon groundwater and relied upon a previous evaluation for the entire aquifer. While existing groundwater use restrictions may be in place, institutional controls, such as groundwater use restrictions, cannot be used to eliminate a future exposure pathway. In order to determine Clean Harbor's potential contribution to groundwater contamination and site risks for potential receptors, the groundwater must be quantitatively evaluated given the need to preserve future groundwater use.

CH Response: Clean Harbors acknowledges that there is a site related contribution of certain COCs to groundwater at the Site. This is evidenced by the presence of elevated levels of COCs in groundwater on and downgradient of the Site where little to no upgradient contribution is present. The technical memorandum will compare the highest detected concentrations of groundwater contaminants over the past five years and the most recent round of sampling results to USEPA maximum contaminant levels (MCLs) and concentrations in upgradient wells. This analysis will include a statement that the detected groundwater concentrations may not represent worst case conditions since many of the wells were not installed in close proximity to soil source areas.

In addition, the memorandum will compare soil concentrations of COCs to the KDHE Tier II RSK values for groundwater protection under a residential scenario to further identify constituents in soil that are present at concentrations that could have potentially migrated to groundwater prior to soil removal. This analysis was included in both the IRM workplan and Phase IV RFI report.

This analysis will provide two lines of evidence indicating that the groundwater at the Site was being impacted by site related COCs prior to remediation.

Comment 2: The soil data that were used for the risk assessment was incomplete and only included data from 2013 and did not include all appropriate existing soil data across all potential exposure areas. Without a complete set of all existing soil data from all potential exposure areas, it is not possible to determine baseline risk for all potential receptors on site.

CH Response: The 2013 phase IV RFI investigation provided a robust data set collected across the entire site with significantly greater lateral and vertical COC definition than data collected previously.

However, Clean Harbors acknowledges that excluding historic data from the evaluation may possibly have underestimated exposure point concentrations (and potential risk/hazard) in certain areas for certain receptors.

Data collected between 1999 and 2005 was used in the previous human health risk assessment for the Site that was issued in June 2007. Clean Harbors will perform a comparative analysis of the exposure point concentrations used in the 2007 risk assessment with those used in the 2014 risk assessment. It is believed that the exposure point concentrations, and resultant risk, were higher or at least similar in the 2014 risk assessment than in the 2007 risk assessment, which would indicate that the 2014 risk assessment provides an effective indicator of potential risk at the Site. This comparison will be performed in lieu of recalculating risks using the entire data set and is appropriate considering the interim remedial action performed at the Site has significantly reduced COC concentrations and risks.

Post IRM risks will be evaluated in a second memorandum to be completed once all interim actions have been performed and the data set describing post IRM site conditions has been compiled.

Comment 3 – The risks for potential exposure to site soil were not evaluated with the most current Regional Screening Levels or most current exposure factors. Given the incomplete soil data set along with the evaluations not using the most current RSLs, the current risk calculations do not reflect accurate reasonable maximum exposure for the site.

CH Response: As described above, a second memorandum, describing potential risks post IRM will be developed which will use all updated RSLs and exposure factors. The 2014 risk assessment (completed in March 2014) was issued prior to the revised RSLs and exposure factors being issued.